Exhibit 6

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

HEADWATER RESEARCH LLC, *Plaintiff*, v. SAMSUNG ELECTRONICS CO., LTD. and SAMSUNG ELECTRONICS AMERICA, INC. *Defendants*.	Case No. 2:23-cv-00103-JRG-RSP JURY TRIAL DEMANDED

DECLARATION OF DON TURNBULL, PH.D.

I, Don Turnbull, declare as follows:

I. INTRODUCTION

1. My name is Don Turnbull, PhD. I have been asked to submit this declaration on behalf of defendants Samsung Electronics Co., Ltd. ("SEC"), and Samsung Electronics America, Inc. ("SEA") (collectively, "Defendants" or "Samsung"), in connection with a claim construction proceeding in the above-captioned matter.[1] Specifically, I have been asked to share my opinions regarding the meaning of certain terms of U.S. Patent Nos. 8,406,733 ("the '733 Patent"), 9,198,117 ("the '117 Patent"), and 9,615,192 ("the '192 Patent") (collectively, the "Asserted Patents"), as understood by a person having ordinary skill in the art ("a POSITA"). I have been told the Defendants intend to submit this declaration to the Court in support of their arguments regarding the proper construction of these terms. My opinions and the bases for my opinions are set forth below.

2. I am being compensated at the rate of $850 per hour for my time spent on this case. No part of my compensation depends upon the outcome of this matter. My compensation is in no way contingent on the nature of my findings, the presentation of my findings in testimony, or the outcome of this or any other proceeding. I have no other interest in this proceeding.

3. In reaching the conclusions stated in this declaration, I have relied upon my own personal knowledge and experience.

[1] I reserve the right to offer rebuttal and/or additional opinions regarding claim constructions or other issues on behalf of the Defendants for this matter.

II. BACKGROUND

A. Qualifications

4. A full description of my educational background, professional achievements, qualifications, and publications in the past 30+ years are set forth more fully in my curriculum vitae, which is attached to this Declaration as Exhibit A. Here, I provide a brief summary of my background and qualifications.

5. I am an accomplished researcher and creator of innovative, patented and trade-secreted technologies related to information retrieval, e-commerce, personalization, mobile interfaces, behavioral modeling, content organization, and analytics. I am also the author of numerous academic publications, including: a textbook on Web-based information seeking (*i.e.*, how people search and browse the Internet) and knowledge work (*i.e.*, how technology enables people to work together); articles on human-computer interaction design, personalization for Web information retrieval and recommender systems; and numerous definitive works on information architecture methodologies, software interface design, and software development.

6. My experience includes helping software companies, from small startups to large corporations, create new technologies and applications. To advise these companies, I research and monitor academic and industry technology developments to keep up-to-date regarding advances in the field. I am also aware of the history of software development from my professional and academic experience over the past 30 years.

7. I also have experience and knowledge working with user interfaces, such as on mobile apps, and their integration into assisting users in their environment. I have also taught a number of software design and development courses at the graduate level including mobile systems, networked multimedia, interaction design, the semantic web and data analytics among others. In particular, I have been heavily involved with computing systems that collect data on

user behavior (such as selecting content in an interactive computing environment). I have talked at industry and academic conferences on mobile, pervasive computing, and personalization, including on collection and evaluation of user interactions and content analysis.

8. I received my undergraduate degree at the University of Texas at Arlington in 1988, with an emphasis in computer science. Upon graduating, I took a position at a small software company in Dallas that developed expert systems software that automated the processing and optimizing the digital documents for either print or screen based on sets of rules and heuristics.

9. In 1991, I moved to Atlanta to work in an emerging, exciting area of software called CASE (Computer Aided Software Engineering). I designed and built software that helped other programmers build their own software applications. Since I had researched and built document-oriented applications, and understood hypermedia and hypertext, I also worked on specific applications that helped people build more modern graphical user interface (GUI) applications that could run on Windows or Macintosh systems, and still connect to corporate computer systems. I also designed document authoring and editing applications to compile interactive, multimedia hypertext systems within the GUI operating systems. These systems gave KnowledgeWare software users an interactive, pop-up help in a graphical browser window that included hyperlinks and a search function, much like the emerging Web browser applications and interfaces. As part of my work, I used and prototyped applications in the first World Wide Web browser on the NeXT Computer. The NeXT Web browser resembled modern Web browsers, and displayed documents as their authors wanted them, with fonts and links to other documents hosted all over the world accessible via the internet.

10. I returned to graduate school in 1994 at the Georgia Institute of Technology ("Georgia Tech") in a new graduate-only research department that focused on Internet

technologies. This was when the Internet had started to become very popular, and my own work with hypertext, graphical interactive Web browsers and application programming had already prepared me to move in this research direction. As a graduate student at Georgia Tech, I worked on several projects that focused on hypermedia design and the Internet. In late 1994, I configured and ran a very early Web site (approximately the 8500th site on the Web). This early Web site featured an interactive survey, which utilized a database system and email-processing application working in concert with the interactive Web browser. I also worked on a new kind of automated Internet search tool, which (while not ready for commercial use) illustrated many ideas related to smarter Internet searching and understanding user preferences to present recommended resources. In early 1995, I also worked with a research team at Georgia Tech that developed a modified NCSA Mosaic Web browser that offered a Graphic History View of browsing history in a separate window, which featured a tree-like structure of the links followed on Web pages, including thumbnail graphics of each Web page in the background.

11. My master's thesis at Georgia Tech focused on automatically generating large interactive hypermedia Web sites (large sets of Web pages, focused on a topic) through stored multimedia Web content in a database, which could be used to "publish" a subset of pages onto the Web, based on an author's filtering criteria. In 1995, I earned an M.S. in Information Design and Technology from the Georgia Institute of Technology with my thesis, entitled "Object-Oriented Information Development: A Methodology and System for Large-Scale Hypertext Documents."

12. After Georgia Tech, I went to IBM's first U.S. Internet group, where I was a Lead Technical Architect and worked on a number of related projects that dealt with graphical user interfaces and networked systems using Internet technology. I also contributed to designs and

advised on numerous other ongoing Internet-focused projects at IBM, including Web site development tools for eCommerce small business Web sites, large enterprise (intranet) Web sites including portals, as well as the foundations for a Web site usability practice at IBM to evaluate Web use of IBM software and server-based applications.

13. In 1996, pursuant to my doctoral studies at the University of Toronto, I researched Internet technologies including Web browser functionality, protocols, and interfaces that are still used today on desktop computers, but also in mobile devices and other inter-networked hardware and software. I developed a client application called WebTracker that worked as a usage history data collection agent in deep concert with Web browsers to collect a user's Web browser activity including the application functionality of the Web browser itself (e.g. opening a bookmark or searching a Web page, etc.) and the history of Web services accessed (e.g. using a Web-based application or interacting with a Web server, etc.). I also researched user-interaction design as well as the underlying algorithms to predict and recommend user information needs assistance.

14. In 2002, at the University of Toronto, I finished my doctoral dissertation, entitled "Knowledge Discovery in Databases of Web Use: A Search for Informetric and Behavioral Models of Web Information Seeking." A large component of my research was collecting and analyzing very large scale network access datasets (gigabytes) and develop models that showed how users and their client computers were using the internet and Web as a platform with application usage and information services.

15. Later that year, I returned to Texas and accepted a faculty position at the University of Texas at Austin. As an assistant professor, I continued to pursue my research and taught graduate students on advances in subjects such as Web Information Retrieval Evaluation & Design (search), Information Architecture (including the history of hypertext and multimedia systems),

Interaction Design & Human Computer Interaction (HCI), Web Analytics, the Semantic Web, and Knowledge Management systems. All of my courses focused on using interactive computer systems in networked environments to empower people to use information and interact with their computing environments.

16. During my time at the University of Texas, I conducted a variety of research projects, published numerous academic papers, and presented at academic and industry conferences. The projects included analyzing network traffic data, developing mobile device applications and interfaces, as well as qualitative and quantitative user behavior data collection and analytics. In addition to my work on campus, I also provided consulting advice on system design to companies outside the university, including small technology startups as well as large corporations such as Microsoft and Motorola. Part of this industry work was focused on mobile devices, interfaces and applications ranging from PDAs, early smartphones and the iOS and Android platforms. Throughout these early days of mobile devices, I have been a research, designer and developer for these platforms and operating systems and this continues to today.

17. I currently work with various software companies—from small startups to large corporations—to create new technologies and applications. In this role, I continue to monitor academic and industry advances in information systems. In over 30 years as a developer, professor, researcher, and software architect, I have read, and become familiar with, a large part of the rich history of development and design work in the field of computer science. As a software developer and designer, I personally witnessed and contributed to the early development of personal computers with graphical user interfaces, Web-based systems, and Web site development, as well as the growth of mobile networked computing. I have designed and built applications and systems for research and commercial uses, with a focus on practical, business-oriented tools. My

work has used data in novel and transformative ways to move commerce from the real world to the Internet, thereby aiding the growth of e-commerce systems for finding, recommending, and sharing items to purchase.

18. In sum, I have extensive experience—as a developer and researcher—relating to computing devices and network-based systems. I have developed tools to collect, organize, and store user interaction data, and implement systems that can leverage user data to make using computing devices smarter and easier.

B. Materials Considered

19. As part of my preparation for writing this Declaration, I reviewed the '733, '117, and '192 Patents, their prosecution histories, and the parties' proposed constructions.

III. LEGAL STANDARD FOR CLAIM CONSTRUCTION

20. I have the following understanding of the applicable law based on my discussions with various counsel in my past experience and with counsel here.

A. Claim Construction

21. I understand that the words of a claim are generally given the ordinary and customary meaning that the term would have to a person of ordinary skill in the art at the time of the invention (as defined below).

22. I understand that both "intrinsic evidence" and "extrinsic evidence" may be considered in construing the meaning of claim terms.

23. I understand that "intrinsic evidence" is the most important evidence when construing claim terms and includes the claims, specification, and prosecution history. I understand that the starting point for the claim construction analysis is the actual language of the claims. I understand that the claims must be read in the context of the entire patent, including the specification, because the specification is the best source for understanding a technical term in a

patent claim. I understand that claims should be construed so as to give meaning to all claim terms; i.e., to avoid interpretations that render terms superfluous or read out limitations. I further understand that the prosecution history is also relevant to the claim construction analysis because it may provide evidence of how the applicant and the PTO understood the scope of the claims, and how the terms would be understood by a person of ordinary skill in the art.

24. I understand that "extrinsic evidence" may also be considered in construing claim terms, but that such evidence is given less weight than the intrinsic evidence. I understand that extrinsic evidence includes dictionaries, treatises, and expert testimony such as mine.

B. Indefiniteness

25. I understand that the standard for indefiniteness is whether a person having ordinary skill in the art would understand what is claimed when the claim is read in light of the specification and prosecution history. A claim is indefinite if, viewed in light of the specification and prosecution history, it fails to inform one skilled in the art about the scope of the invention with "reasonable certainty." The definiteness requirement must take into account the inherent limitations of language; reasonable certainty in light of the subject matter, and not absolute precision, is required.

26. I understand that a patent must be precise enough to afford clear notice of what is claimed and apprise the public of what subject matter is still open to them in a manner that avoids a zone of uncertainty. I am informed that a claim does not provide clear notice of its scope if a claim term may be reasonably interpreted to refer to multiple different methods, which provide different results, and the intrinsic evidence offers no guidance regarding which method should be used.

27. I understand that indefiniteness is an invalidity defense, and that the defendant or accused infringer bears the burden to demonstrate a term is indefinite by clear and convincing evidence.

IV. LEVEL OF ORDINARY SKILL IN THE ART

28. I understand that terms in the Asserted Patents must be read as they would have been understood by a POSITA at the time of the invention.

29. I have also been advised that a POSITA is a hypothetical person to whom the claimed subject matter pertains with the capability of understanding the scientific and engineering principles applicable to the pertinent art. I understand that the following factors may be considered in determining the level of ordinary skill: type of problems encountered in the art; prior art solutions to those problems; speed with which innovations are made; sophistication of the technology; and educational level of active workers in the field. I also understand that not every factor may be present and that one or more factors may predominate.

30. In my opinion, a POSITA would have had (1) at least a bachelor's degree in computer science, electrical engineering, or a related field; and (2) 3-5 years of experience in services and application implementation in communication networks. Additional graduate education could substitute for professional experience, and vice versa. In view of my education and experience, I satisfy the foregoing qualifications.

V. OVERVIEW OF THE COMMON PATENT SPECIFICATION[2]

31. The Asserted Patents' common specification spans about 163 columns. Its figure 16 and related discussion, for example, illustrate a relevant background for the claim terms at issue

[2] The '733, '117, and '192 Patents share a common specification. For simplicity, this section cites to the '733 Patent specification, although the other two patents contain the same disclosures.

here. Figure 16 discloses a "service processor" 100 that can execute on a mobile device and comprises numerous "agents." Figure 16 further shows a service control link 1653 between a service control server link 1638 (on the service controller 122) and a service control device link 1691 (on a service processor 100). '733 Patent at 36:63-37:35. The service control link 1653 is described as a control plane communication link that establishes a secure bidirectional communications for controlling and monitoring service policies. *Id*. at 68:20-37.

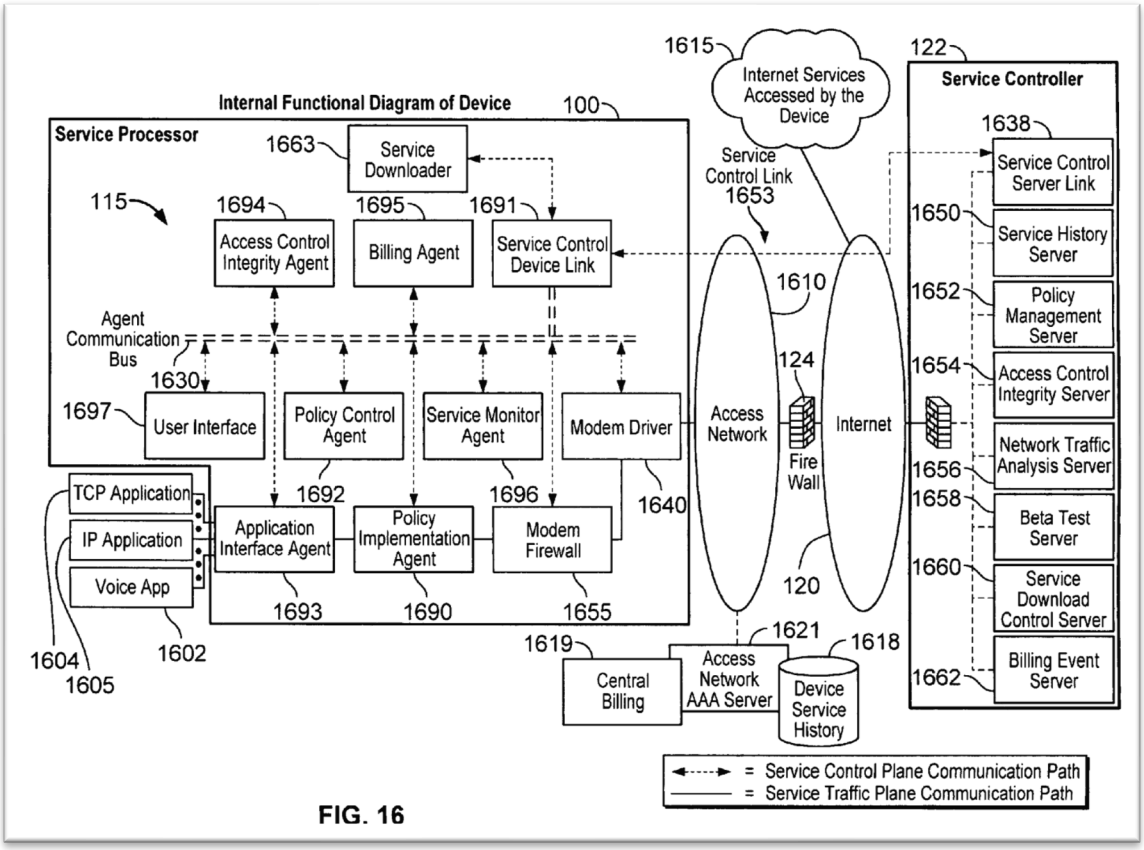


FIG. 16

VI. THE '733 PATENT

A. "device agents" (claims 1, 30)

32. In my opinion, a POSITA would not have been able to ascertain the meaning of the term "device agent" with reasonable certainty. The term "device agent" is not a commonly-known term in the art, and neither the claims nor the specification provide any guidance as to its scope.

33. In the context of a computer network, "agent" means software that performs certain functions on behalf of another element. *See, e.g.*, Newton's Telecom Dictionary, 24th ed. (2008) at 95 (defining "agent" as "software that runs on a client computer for use by administrative software running on a server"); Dictionary of Science and Technology, 2nd ed. (2007) at 20 (defining "agent" as "a program or piece of software that runs on a workstation in a network, sending performance and statistical information about the workstation to a central network management console"); Dictionary of Computer and Internet Terms, 10th ed. (2009) at 15 (defining "agent" as software that "performs a service for someone," such as an agent "run[ning] on a client computer to keep the server informed of its needs").

34. A "device agent," on the other hand, is not known in the art, and it is unclear how adding the prefix "device" affects its scope relative to the term "agent."

35. The claim language does not illuminate the meaning of the term "device agent." Claim 1 recites that a plurality of device agents are "communicatively coupled to the service control device link agent through an agent communication bus," that each device agent is "identifiable by an associated device agent identifier," and that a "particular" device agent receives message content delivered by a "service control device link agent." '733 Patent, Claim 1. These generic operations do not inform the boundaries of a "device agent": They leave open the question of whether a "device agent" adopts the meaning of an "agent" and, if so, how the prefix "device" modifies its meaning.

36. The specification does not resolve the ambiguity. The specification uses the term "device agent" only a few times, describing its generic function or indicating that a device agent is software. *See, e.g.*, '733 Patent at 15:58-60 ("[T]he service processor 115 includes various components, such as device agents, that perform service policy implementation or management

functions."); *id*. at 11:65-66 ("the device agent software"), 160:7-8, 162:34-35, 162:47-48. At best, a POSITA would glean from these disclosures that a device agent performs functions related to service and management, but these abstract disclosures do not meaningfully delineate the bounds of a device agent.

37. The specification's discussion of the word "agent" is also not helpful because it is used in a manner that is completely unbounded, encompassing anything implemented in hardware, software, or both. *Id*. at 42:48-43:7 (agents can be implemented "largely or entirely in software" or "with a mixture of software and hardware" or "primarily with hardware"). Further, the specification does not explain how the term "device agent" relates to the term "agent."

38. Headwater's infringement contentions add to the confusion. In its infringement contentions, Headwater reads "device agents" on "applications." *E.g.*, '733 Chart at 14 (asserting that the accused functionalities "comprise multiple device agents (e.g., operating system software and/or applications)…"), 17 (same). Such an interpretation, however, undermines the little guidance given in the specification. For example, Figure 29 illustrates various "agents" (yellow) separately from the "apps" (blue):

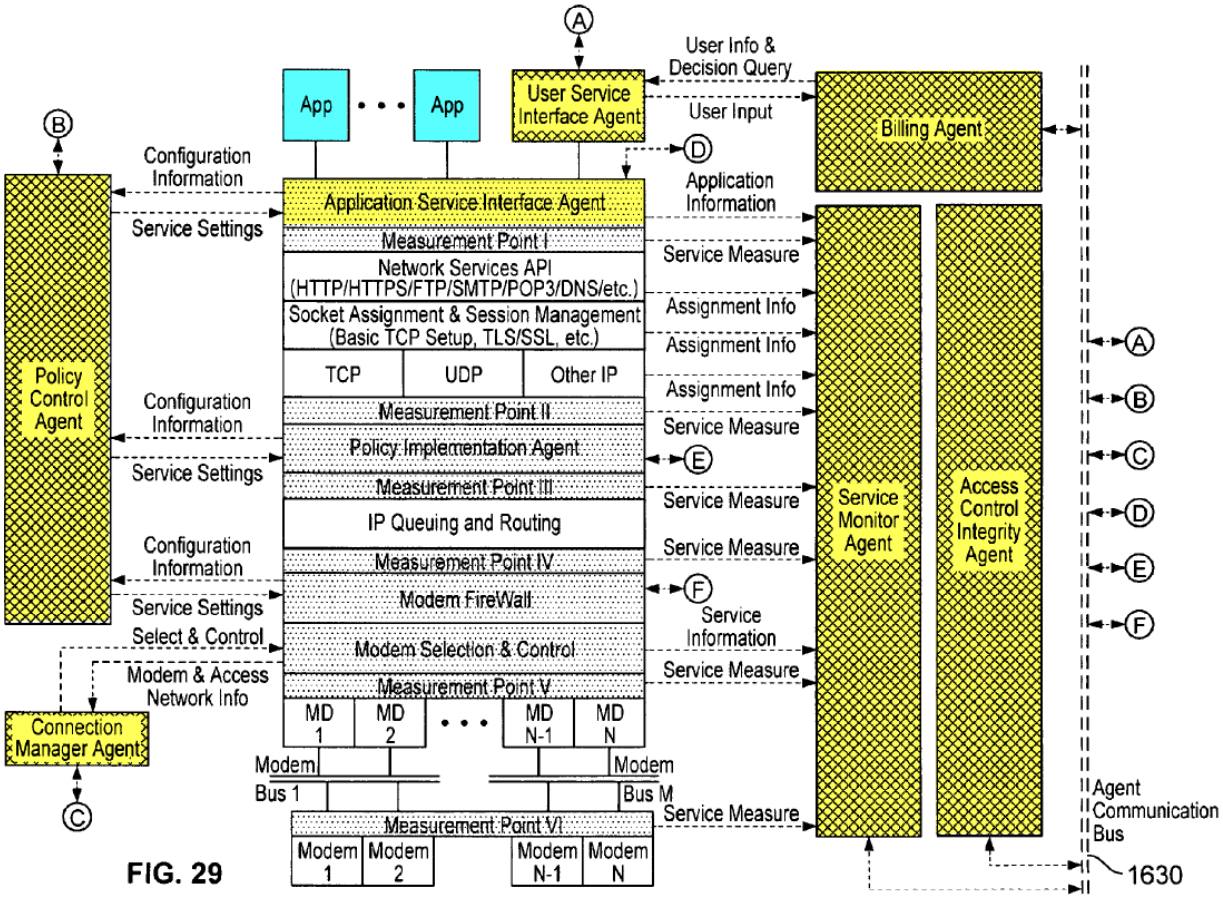


FIG. 29

39. Figure 16 similarly depicts "agents" (yellow) distinct from the "applications" or "apps" (blue):

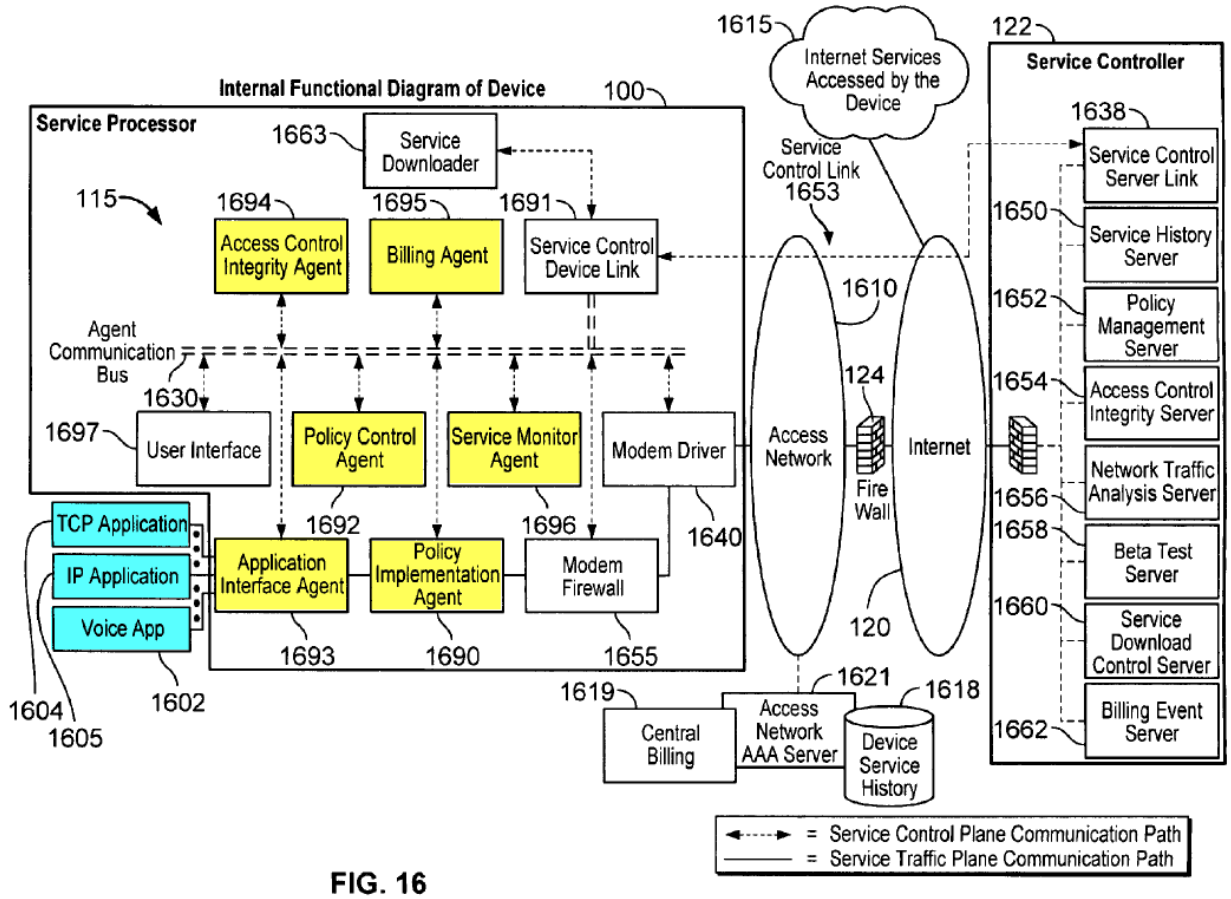


FIG. 16

See also '733 Patent at 52:5-9 ("As shown in FIG. 16, the application interface agent 1693 is in communication with various applications, including a TCP application 1604, an IP application 1605, and a voice application 1602."); *see also id*. at 56:52-53 (same).

40. As an initial matter, it is not even clear that the "agents" in the figures above are "device agents" because, as previously noted, the term "agent" is not the same as a "device agent," and the specification does not explain how the two terms are related. But even assuming that "agents" in the above figures depict embodiments of "device agents," the figures show that, contrary to Headwater's interpretation, "device agents" cannot simply be the apps or applications. In other words, even where the specification arguably provides some guidance,

Headwater's infringement contentions proffer a conflicting interpretation that undermines such guidance.

41. Accordingly, in my opinion, a POSITA would not have ascertained with reasonable certainty the scope of the term "device agents."

B. "wherein the particular device agent is configured to assist in presenting a notification through the user interface, the notification based on the message content" (claim 19)

42. As discussed above with respect to claims 1 and 30, a POSITA would not be reasonably certain what constitutes a "device agent." For similar reasons, a POSITA would not be reasonably certain how to determine whether a "device agent" (functionality without definite boundaries) "assist[s] in" presenting a notification. In general, presenting a notification through a user interface was a well-known functionality that long predates the asserted patents. However, it is not clear how a POSITA would have determined whether a particular component "assist[s]" in that presentation.

43. Accordingly, in my opinion, a POSITA would not have ascertained with reasonable certainty the scope of the limitation of claim 19.

VII. THE '117 PATENT

A. "device messaging agents" (claim 1)

44. As discussed above with respect to claims 1 and 30 of the '733 Patent, a POSITA would not be reasonably certain what constitutes a "device agent." For similar reasons, a POSITA would not be reasonably certain what constitutes a "device ***messaging*** agent." The specification does not use such a term, and the addition of the word "messaging" does not render its meaning any more ascertainable than a "device agent." A "device messaging agent" is not a known term in the art, and the claim language does not help define its boundaries because it only teaches that

a "device messaging agent" is executable on an end-user device and receives/forwards messages from the Internet.

45. Accordingly, in my opinion, a POSITA would not have ascertained with reasonable certainty the scope of the term "device messaging agent."

B. "at least one of the devices having a network stack in communication with the device messaging agent, wherein the secure connection between the network message server and that device is terminated within the network stack" (claim 13)

46. In the context of computer networking, "network stack" refers to logical "layers" that describe how different networking functionality is conceptually organized. As such, it is unclear how any pair of networking devices would ***not*** have a network stack. The patent itself describes a network stack as a "standard" feature. *See, e.g.*, '117 Patent at 55:67-56:5 ("In some embodiments, the application interface agent 1693 intercepts traffic between the applications and the ***standard network stack*** interface API in order to more deeply inspect the traffic, modify the traffic or shape the traffic (e.g., thereby not requiring any modification of the device networking/communication stack of the device OS)."), *id.* at 93:55-60 ("As described herein, in some embodiments, these functions are separated so that a ***standard network stack function*** can be used for IP queuing and routing, and the modifications necessary to implement the policy implementation agent functions can be provided in a new layer inserted into the standard stack.").

47. Given the ubiquity of "network stacks" and the undefined nature of the "secure connection," a POSITA would not be reasonably certain about whether a given "connection" "terminates" within the network stack. At its highest level, a network stack consists of an application layer, which refers to functionality accessible by applications. However, it is unclear whether any "connection" in the context of claim 13 could be said to terminate "within" or "outside" this layer. Figure 29 illustrates a "device communications stack," but no "secure

connection" from a network message server terminating within that stack. *See id.* at Fig. 29, 91:17-63.

48. Accordingly, in my opinion, a POSITA would not have ascertained with reasonable certainty the scope of the limitation of claim 13.

VIII. THE '192 PATENT

A. "software components" (claims 1, 15)

49. Ordinarily, the term "software components" would be understood to refer to some component of software—which in the context of the accused networking devices is exceptionally generic. However, the patent attempts to use that term in a more specialized, but contradicting, manner. Specifically, it is unclear whether "software components" encompass "device [link] agents" (which as explained below is also indefinite) or whether "software components" and "device agents" must be different things.

50. Claim 1 suggests that "software components" and "device link agents" are different. It recites various functions that "software components" must support, and distinguishes these components from "device link agents." For example, "software components" on end-user devices must be "authorized to receive and process data from secure message link messages received via a device link agent on that device" and "network element messages" comprise "message content including data for, and an identification of, a respective one of the authorized software components."

51. Likewise, at least one passage from the specification expressly distinguishes "software components" from "agents"—indicating that these otherwise generic terms refer to different things. *See* '192 Patent at 43:31-37 ("For example, the session bus can be further protected by storing all software (e.g., software components, applications and/or agents) in secure memory, storing all software in encrypted form in secure memory, and/or executing all software

and communications within a secure execution environment, hardware environment and/or protected memory space."); *see also id.* at 46:53-57 ("A variety of other tamper resistance techniques can also be used to protect the ATS from tampering as similarly described herein with respect to other device based functions/software components/agents.").

52. Other passages, however, indicate that device agents *are* software components. For example, the specification states that agents can be implemented "largely or entirely in software" or "with a mixture of software and hardware" or "primarily with hardware." '192 Patent at 43:8-44. As another example, the specification references "service processor 115 software components" in the context of Figure 16, which illustrates primarily various "agents." *See* '192 Patent at 28:39-47.

53. Accordingly, in my opinion, a POSITA would not have ascertained with reasonable certainty the scope of the term "software components."

B. "wherein one of the message delivery triggers is the receipt of a transmission on the respective secure message link from the device link agent of the given one of the wireless end-user devices, or a response generated to a transmission received from that device link agent" (claim 11)

54. The "message delivery trigger" of dependent claim 11 refers to the "trigger" of independent claim 1 that causes "logic" of a "message buffer system" to "supply one or more messages . . . for delivery" to a given wireless end-user device. Claim 1 requires that one of these triggers is "an occurrence of an asynchronous event with time-critical messaging needs." Not only would a POSITA be unclear as to whether claim 11 refers to the same "asynchronous event" trigger recited by claim 1 or something different, but, also, it is unclear how a "response generated to a transmission" would be effectively different from the transmission itself.

55. Accordingly, in my opinion, a POSITA would not have ascertained with reasonable certainty the scope of the limitation of claim 11.

C. "wherein one of the message delivery triggers is the receipt of a particular network element message from one of the network elements" (claim 13)

56. The '192 Patent fails to provide a POSITA with reasonable certainty as to a "particular network element message" that, when received, constitutes a "message delivery trigger." The claims provide no clarity as to what qualifies as a "particular" network element message. For example, it is unclear whether a network element message becomes "particular" by virtue of containing certain content or by virtue of arriving at a particular time or in a particular manner, as determined by circumstances beyond its control (e.g., does the 1000th network element message constitute a "particular" message out of many others).

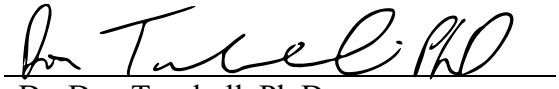
57. The specification sheds no light on this issue, as it does not discuss "particular network element messages" within the context of "message delivery triggers."

58. Accordingly, in my opinion, a POSITA would not have ascertained with reasonable certainty the scope of the limitation of claim 13.

IX. CONCLUSION

59. This declaration and my opinions herein are made to the best of my knowledge and understanding, and based on the material available to me, at the time of signing this declaration. I reserve the right to amend or supplement my opinions based on new information, including any claim construction arguments or expert opinions that Headwater offers in this case and/or any other information I deem relevant to my analysis. I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 29th day of April, 2024 in Lewisville, Texas.



Dr. Don Turnbull, Ph.D.